

WHAT IS CLAIMED IS:

1. An ink jet recording apparatus for forming an image on a recording medium supplied from a feed sheet unit and transferred in a predetermined transfer direction by jetting ink from a recording head made to move in the main scanning direction thereof, the apparatus comprising:

a recording medium detection unit for detecting a first recording medium whereon formation of an image is in progress, provided on an upstream side of the recording head in the transfer direction;

a remaining length-to-rear end measuring unit for measuring length from a point at which presence of said first recording medium is detected by said recording medium detection unit to a rear end of said first recording medium;

a remaining recording time measuring unit for measuring time from said point until the formation of the image on said first recording medium is completed; and

a control unit for letting said feed sheet unit start a feed of a second recording medium when the length measured by said remaining length-to-rear end measuring unit is found to be less than predetermined reference length, and the time measured by said remaining recording time measuring unit is found to be

less than predetermined reference time.

2. An ink jet recording apparatus according to claim 1, further comprising a next page recording  
5 determining unit for determining whether formation of an image on said second recording medium is necessary or not when said second recording medium for the next page is supplied from said feed sheet unit following said first recording medium, wherein said control unit  
10 operates for letting the feed of said second recording medium start when it is found that the image needs to be formed on said second recording medium by said next page recording determining unit.

15 3. An ink jet recording apparatus according to claim 1, wherein said predetermined reference time is time from a point at which a feed of a sheet is started by said feed sheet unit until said second recording medium starts to move.

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4. An ink jet recording method for forming an image on a recording medium supplied from a feed sheet unit and transferred in a predetermined transfer direction by jetting ink from a recording head made to  
25 move in the main scanning direction thereof, the method comprising the steps of:

(a) detecting a first recording medium whereon

formation of an image is in progress on an upstream side of the recording head in the transfer direction;

(b) measuring length from a point at which presence of said first recording medium is detected in the step (a) to a rear end of said first recording medium;

(c) measuring time from said point until the formation of the image on said first recording medium is completed; and

(d) letting said feed sheet unit start a feed of the second recording medium when the length measured in the step (b) is found to be less than predetermined reference length, and the time measured in the step (c) is found to be less than predetermined reference time.

5. An ink jet recording method according claim 4, wherein the step (d) comprises determining whether or not an image needs to be formed on said second recording medium for the next page to be supplied from said feed sheet unit following said first recording medium so that the feed of said second recording medium can be started when it is found that the image needs to be formed on said second recording medium.

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6. A computer program product for executing an ink jet recording method for forming an image on a

recording medium supplied from a feed sheet unit and transferred in a predetermined transfer direction by jetting ink from a recording head made to move in the main scanning direction thereof, said computer program

5 product comprising:

(a) first program code means for detecting a first recording medium whereon formation of an image is in progress on an upstream side of the recording head in the transfer direction;

10 (b) second program code means for measuring length from a point at which presence of said first recording medium is detected in the step (a) to a rear end of said first recording medium;

(c) third program code means for measuring time  
15 from said point until the formation of the image on said first recording medium is completed; and

(d) fourth program code means for letting said feed sheet unit start a feed of the second recording medium when the length measured in said second program  
20 code means (b) is found to be less than predetermined reference length, and the time measured in said third program code means (c) is found to be less than predetermined reference time.

25 7. An computer program product according to claim 6, wherein said fourth program code means (d) comprises determining whether or not an image needs to

be formed on said second recording medium for the next  
page to be supplied from said feed sheet unit  
following said first recording medium so that the feed  
of said second recording medium can be started when it  
5 is found that the image needs to be formed on said  
second recording medium.